IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A method of forming a coating on an optical fiber, comprising:

setting a coating forming portion of the optical fiber in a mold;

injecting a light-curing resin into the mold;

heating and monitoring the mold in order to heat the light-curing resin up to a glass transition temperature thereof; and

irradiating the light-curing resin, which has been heated-up to the glass transition temperature, with a light in order to cure the light-curing resin.

Claim 2 (Previously Presented): The method of forming a coating on the optical fiber according to claim 1,

wherein in heating the light-curing resin, a preset temperature is maintained for a predetermined period of time after having reached the glass transition temperature, and

wherein in irradiating the light-curing resin, irradiation is continuously conducted from a start time of heating toward said preset temperature to the end of said predetermined period of time.

Claim 3 (Previously Presented): The method of forming a coating on the optical fiber according to claim 1, further comprising:

heating said mold to a temperature for enhancing flowability of the light-curing resin when the light-curing resin is injected into the mold.

Claims 4-8 (Canceled).

Claim 9 (Previously Presented): A method of forming a coating on an optical fiber, comprising:

setting a coating forming portion of the optical fiber in a mold;

heating and monitoring a unit configured to store and inject a light-curing resin in order to heat the light-curing resin to a temperature for enhancing flowability of the light-curing resin;

injecting the light-curing resin into the mold;

heating and monitoring the mold in order to heat the light-curing resin up to a predetermined temperature; and

irradiating the light-curing resin, which has been heated up to the predetermined temperature, with a light in order to cure the light-curing resin.

Claim 10 (Previously Presented): The method of forming a coating on an optical fiber according to claim 9, further comprising:

during injection, heating and monitoring the mold in order to heat the mold to the temperature for enhancing flowability of the light-curing resin.

Claim 11 (Previously Presented): The method of forming a coating on an optical fiber according to claim 9,

wherein the predetermined temperature is the glass transition temperature of the light-curing resin.

Claim 12 (Previously Presented): The method of forming a coating on an optical fiber according to claim 9,

wherein the unit configured to store and inject the light-curing resin includes a tank, tube, and pump, each provided with a heater and a temperature sensor, and

wherein the heaters of the tank, tube, and pump are controlled in accordance with a temperature detecting output of each of the respective temperature sensors.

Claim 13 (Previously Presented): A method of forming a coating on an optical fiber, comprising:

setting a coating forming portion of the optical fiber in a mold;

heating and monitoring a means for storing and injecting a light-curing resin in order to heat the light-curing resin to a temperature for enhancing flowability of the light-curing resin.

injecting the light-curing resin into the mold;

heating and monitoring the mold in order to heat the light-curing resin up to a predetermined temperature; and

irradiating the light-curing resin, which has been heated up to the predetermined temperature, with a light in order to cure the light-curing resin.

Claim 14 (Previously Presented): The method of forming a coating on an optical fiber according to claim 13, further comprising:

during injection, heating and monitoring the mold in order to heat the mold to the temperature for enhancing flowability of the light-curing resin.

Claim 15 (Previously Presented): The method of forming a coating on an optical fiber according to claim 13,

wherein the predetermined temperature is the glass transition temperature of the light-curing resin.